

Rupr. Mém. Acad. Pétersb. sér. 7, xiv. n. 4, 51 (1869). *Leptilon canadense* (L.) Britton in Britton & Brown, Ill. Fl. iii. 391 (1898). *L. canadense pusillum* Daniels, Fl. Boulder, Col. 239 (1911), as to plant but excl. name-bringing synonym.—Common and widely distributed through temperate North America, Mexico, and in scattered localities south even to Chili; also an introduced weed in waste places, etc., in the Old World.

Var. GLABRATUS Gray. Tall and (for the species) robust, with smoothish stem, the trichomes few, scattered, and very short, ascending or subappressed: branches of the large inflorescence long (1-1.5 dm.) simple, apt to be closely flowered and appearing inversely racemose or even almost spicate.—Pl. Lindh. ii. 220 (1850).—TEXAS: between the Colorado and Nueces Rivers, *Berlandier*, no. 2555; fields in sandy loamy soil near Bracken, Bexar Co., *Groth*, no. 83; prairie north of the Llano among granite rocks, *Lindheimer*, no. 626 (444). NEW MEXICO: Forest Nursery, Fort Bayard, Watershed, Grant Co., *Blumer*, no. 33; cañons, Tierra Blanca, Sierra Co., *Metcalf*, no. 1229. CHIHUAHUA: near Lake Santa Maria, *E. W. Nelson*, no. 6388. CALIFORNIA: Wilson's Lake, *Nevin*, no. 8.

GRAY HERBARIUM.

## ON VARIATION IN *ARENARIA LATERIFLORA*.

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WHILE collecting on the low grounds near the beach at Westerly, Rhode Island, June 5, 1913, I was struck by the display of *Arenaria lateriflora*, the season's vegetation not being far enough advanced to overtop the *Arenaria*, which was abundant, and conspicuous with its white flowers, over considerable areas. Equally abundant, but growing by itself and not mingling with the other, was a plant with smaller white flowers, which I at first took to be a different species, but which proved on examination to be a form of *Arenaria lateriflora*, or at least closely related to it. Many specimens of these plants were examined, both in the field and later, and the differences between them are so marked and so constant that it seems worth while to place them upon record.

The petals of the first plant average 7.5 mm. in length, and the prominent stamens are about twice the length of the calyx, equalling

or exceeding the styles, and have comparatively large anther cells. The length of the calyx is 2.5 mm.

In the other plant the petals have an average length of 4 mm., while the stamens, which are quite inconspicuous, are shorter than the calyx or barely equal it, and much shorter than the styles, and the anther cells are small. The sepals are about 2.5 mm. long. There are no marked differences in the foliage. Later, in Franklin, a typical hill town of eastern Connecticut, an *Arenaria* was found, growing profusely in dry open woods, which matches exactly the small-flowered plant from Westerly. In wet meadows and open swamps, on the other hand, the only form was one with large flowers, which proved to be an equally good match for the large-flowered Westerly plant. In one instance, in passing from a wet meadow to the surrounding gravel, there was an abrupt transition from the large to the small-flowered form, the former growing freely in the meadow, and the latter being common on the drier gravel, where it was the only form. I soon learned that knowledge of local soil conditions enabled me to predict with certainty which form would occur at any given station in Franklin. It is not so easy to get at the determining factors on the low lands at Westerly. On returning there, however, a few weeks later, to secure fruiting specimens, I discovered that the stations for the large-flowered *Arenaria* were covered with so tall and dense a growth of grasses and sedges that it was exceedingly difficult to find the specimens for which I was looking, while the places where the small-flowered plant grew, were comparatively free from other vegetation, and possess probably a drier and more siliceous soil. As already mentioned, the anthers are noticeably smaller in the small-flowered *Arenaria*, and the cells often seem to be imperfectly developed. The plant fruits freely, however, as, for instance, in dry open woods at Franklin, where there is no admixture of the large-flowered *Arenaria*. Specimens from Westerly and Franklin have been deposited in the Gray Herbarium.

NEW HAVEN, CONNECTICUT.